

### Development of Electronic Health Record for Chinese Medicine eHR(CM) Sharing System in Hong Kong



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**Purpose:** Currently in Hong Kong, health-related and medical data are usually created and kept by different healthcare providers (or sometimes by individual patients) at different locations in different formats, e.g. at CMP's clinics and herbalists shops. While some healthcare providers may deploy electronic medical/patient record systems to store and retrieve medical/patient data, such systems are generally not capable of data sharing at any large scale if at all. An eHR Sharing System provides an information infrastructure for healthcare providers in both the public and private healthcare sectors, with informed and express consent of the patient and proper authorisation for access to the System, to share the eHR they keep on the patient with other healthcare providers and to retrieve the eHR of the patient shared by other healthcare providers.

**Methods:** During the first stage of the project, standardisation of clinical terms mainly focused on four domains including diseases (病名), patterns (證型), acupoints (腧穴) and interventions (治法).

**Results:** The initial design and architecture of the Chinese Medicine Clinical Terminology Table (CMCTT) has been established. Common terms in relation to diseases, acupoints, patterns and inventions were analysed and incorporated into the CMCTT.

**Conclusion:** Standardisation of CM information forms the basis for accurate and efficient communication of electronic CM data. It facilitates uniform communications and reduces costs of technical integration. A proper management framework on standard development lifecycle will ensure the concepts are properly created, described and organised which will enhance data accuracy and quality for health information exchange. Both CM Terminology tables and the maintenance process are essential to the development and daily operation of terminology standard to support data sharing to the eHR.

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<http://dx.doi.org/10.1016/j.imr.2015.04.205>

### A Comparative study on Chinese Western Medicine diagnoses and related outcomes for different types of stroke



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**Purpose:** In Hong Kong, stroke ranks third as the most common cause of death. Every year, there are more than 20,000 stroke patients admitted to Hospital Authority (HA) hospitals. Facing this disabling disease, patients are actively looking for concurrent treatments in both Chinese medicine (CM) and Western medicine (WM). In accordance with the vision of the Food and Health Bureau, this study aims to analyse significant inter-professional parameters and to facilitate the development of Integrated Chinese-Western Medicine (ICWM) in Hong Kong. The three main objectives of this study are: 1. To explore the correlation between WM primary / secondary diagnostic parameters and CM diagnosis in stroke; 2. To examine the health seeking behaviors of stroke patients and the association with stroke outcomes; and 3. To determine a combination of CM and WM treatments that are most beneficial to this group of patients.

**Methods:** Clinical data of patients in the Stroke Registry of a HA hospital will be extracted from the electronic medical records stored in the Clinical Management System (CMS). For those patients who also had Chinese Medicine Consultations at the tripartite CM Centres for Training and Research (CMCTRs), data will be extracted from the Chinese Medicine Information System (CMIS).

**Results:** Data mining techniques will be applied to explore diagnostic and treatment patterns of CM and WM. The resulting data network can help develop an understanding on the linkage of health variables. A comprehensive analysis can then be performed to compare the outcomes of acute stroke patients with or without seeking CM consultations, which could elucidate any significant favorable effects of treatments.

**Conclusion:** Through analysing the matched clinical dataset, this study may shed light on the effectiveness of combined treatments of CM and WM on stroke and bring insights into the underlying factors that associate with specific stroke outcomes.

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<http://dx.doi.org/10.1016/j.imr.2015.04.206>

P4.004

### Challenges and opportunities for the Korean ginseng industry: a plot survey of market expansion among ginseng companies



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**Purpose:** Ginseng products have been widely consumed as dietary supplements across the globe. The ginseng industry

is a promising business worldwide, and its globalization is a governmental interest. This study aimed to investigate the current state of the industry, including employment status and manufacturing sources and to assess the factors associated with the development of the ginseng industry and its entry into the international market.

**Methods:** A company-based survey was conducted by ginseng product manufacturers in South Korea. Eligible companies (N = 186) were randomly selected and were administered questionnaires.

**Results:** Most of the participants stated they were “production workers”. Among a variety of ginseng species, red ginseng (hongsam) was utilized as the primary species (90.0%), followed by wild ginseng (sansam), fresh ginseng (sansam), and black ginseng (heuksam). Most respondents perceived “public relations” as being a critical factor for the development of this industry. “Low manpower” was the most substantial hurdle for industrial growth. In total, 59.3% of respondents suggested that “seeking business partners” was essential for obtaining market globalization.

**Conclusion:** The companies that responded showed varying opinions in our survey. These results are useful for designing proper marketing strategies and priorities, based on a professional perspective.

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<http://dx.doi.org/10.1016/j.imr.2015.04.207>

P4.005

#### Current R&D challenges for market expansion of traditional Korean medicine: a company-based survey in 2014

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**Purpose:** The consumption of traditional Korean medicine (TKM), a subset of Complementary and Alternative medicine (CAM) has markedly increased. Accordingly, the TKM industry has also expanded. TKM products are found in various markets, such as food, medicine, medical devices, and cosmetics; however, product items are limited and their market shares remain small. The purpose of this study is to investigate the current R&D status of the TKM industry and predict the most challengeable market in the future.

**Methods:** A company-based survey was designed to explore the readiness of market expansion and assess promising industry among TKM workers. A validated survey instrument was constructed and distributed to 400 TKM product manufacturing companies in South Korea in 2014 via e-mail or fax. A 71.2% response rate was achieved.

**Results:** Of the participating companies, 61.1% were equipped with research and development (R&D) facilities. The ratio was highest in the companies that produced TKM cosmetics (95%), and lowest in the companies that produced TKM foods (44.7%). The average number of research workers was 8.3, and the highest number of workers was found in a company that manufactured finished-medicinal products (15.8). In addition, 25.9% of the companies invested less than 5% of

their total budget into R&D. The dietary industry was the most promising field for future TKM market expansion (43.9%). The demand for technical convergence was highest in both medical companies and cosmetics companies (83.3% and 85.0%, respectively).

**Conclusion:** Regarding manpower and installation, most companies were capable of performing R&D activities. However, modest R&D investment was likely to be a limiting factor. The dietary industry was perceived as being the most promising field for future market expansion. This study explored the current industrial status and future R&D demands in the TKM industry.

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<http://dx.doi.org/10.1016/j.imr.2015.04.208>

P4.006

#### UK National Health Service clinical practice guidelines mentioning complementary and alternative medicine (CAM) – awareness of CAM practitioners



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**Purpose:** To assess UK CAM practitioners' awareness of National Health Service (NHS) guidelines mentioning CAM, their use and perceptions of their impact.

**Methods:** Phase 1 searched the UK NHS Evidence website for guidelines mentioning CAM. Phases 2 and 3 were online surveys about awareness and use of guidelines with professional CAM organizations (phase 2) and individual CAM practitioners (Phase 3).

**Results:** Phase 1: 43 of 279 guidelines reviewed (13%) mentioned CAM; 44% were inconclusive whether to recommend, mainly due to lack of evidence. Phase 2: CAM professional bodies identified 17 further guidelines. They appeared largely unaware of guidelines mentioning their therapy but positive about guidelines' potential to integrate CAM and keen to facilitate communication regarding evidence for their therapy. Phase 3: Of 865 respondents; 83% were female, half over 50, average 11 years in practice, main CAM practices were massage, reflexology, reiki, aromatherapy, herbal medicine, 3% were NHS-employed, 20% medically trained. 47% felt NHS guidelines were relevant for CAM – mainly to encourage integration and NHS referrals. 79% were unaware of guidelines regarding their therapy. Most commonly cited guidelines were back pain and irritable bowel. Practitioner organisations and NHS websites were information sources accessed. Guidelines were used to inform practice, maintain standards and as evidence. Respondents suggested guidelines were needed for: stress, musculoskeletal conditions, depression/anxiety, IBS, cancer and digestive disorders, and evidence was needed for: pain, stress, cancer, and mental health. Half were willing to engage with future guideline development.

**Conclusion:** Despite recognising that clinical guidelines can potentially facilitate CAM integration, practitioners and regulatory bodies appeared largely unaware of CAM guidance. Lack of CAM evidence for guideline development, areas